

## **SEQUENCE LISTING**

SEQ ID 1

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SEQ ID 2

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SEQ ID 3

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**SEQ ID 4**

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**SEQ ID 5**

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**SEQ ID 6**

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**SEQ ID 7**

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**SEQ ID 8**

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**SEQ ID 9**

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**SEQ ID 10**

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**SEQ ID 11**

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**SEQ ID 12**

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**SEQ ID 13**

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**SEQ ID 14**

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**SEQ ID 15**

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**SEQ ID 16**

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 CACGTAACAGTTGATATTCAATGGCAACTGCCAACAGGAGAAAGTACTTCCATGTTAAAACATTATGTTCTGTTG  
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 GACAGTAAGGAGTGTACACTCCTCAGATGCACTTAATCTGACTCTATACCTTTAAACATTATAGAAATCAGACTACTCTG  
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 CAGATGAAGTGGCATCCACCAAGAACAGCACAGGCCAATTGGGACAACAAAGAACGTCAGCTAGCTACAAAATATCTAGAGAACACAA  
 AGGTGACACAAACCCAGAGAGTATGCTGCTTGAGCCTGATGATTGTATCAATGGTGTAAAGTCTCCATGCCTCAGGAGCACGCTGAGCTAA

**SEQ ID 17**

ATGGCATTAAAGTCCCAACTGAGGCTGAAAAAAATCAAAAAAGAAAAGGAATAGGGCATCTTTAGAAGCGGTACTGTAGAGCCTCCAAAACC  
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SEQ ID 18

ATGGGGCCTCTCCAACCCGGGTGCCCCCTCGGCCATGATCCAAAAGATTGGCCTTAAATTATAATTGATCTAAAGGATTGCTTTTACCATCC  
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GGGAATGCTTAATAGTCCAACCTATTGTCAGACTTTGCTAGGCTCTCAACCCAGTGAAGAGAAAAGTTTCAGACTGTATATTATTACATTAT  
ATTGATGATATTGCTGAGAAACGAAAGATAAAATTAAATTGACTGTATACATTCTGCAGAGGTTGCCATGCTGACTGGCAATAG  
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GTCTGAGCATCACTGGGACATGGTTAGACGCCATCAGGGAGAGAAGATAATCTCACTTACAGGAAATTGACATTCCAAATTAAAGAACAAATT  
GCATCAAAGGCCATTAAATTGGTGCAGGAACGTGAGGCAATTGCAAGGAGTTGCTGATGGCTCGCAAATCTAACCTGTCACTGGGTTAAGA  
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CAGCGACCATCGAGAACGGCCATGATGACGATGGCGTTTGTGAAAAGAAAAGGGGAAATGTGGGAAAGCAAGAGAGATCAAATTGTTACT  
GTGTCTGTGAG

SEQ ID 19

MLTDLRAVNAIQPMGLPQPGLPSPAMIPKDWPLIIDLKDCCFTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPOGMLNSPTICQTFVGRLQPVREKFSDCYIIHCIDDLCAAETDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPEQKIEIRKDTLTLNDFQKLGDINWIRPTLGIPTYAMSNLFSIIRGDSDLNSKRMLTPEATKEIKLVEEKIYOSAOINRIDPLAPLOLLIFATAHSPTGIIIONTDLVEWSFLPHSTVKTFTLY

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LDQIATLIGQTRLRIIKLCGNDPDKIVVPLTKEQVRQAFINSGAWKIGLANFVGIIIDNHYPKTKIFQFLKLTTWILPKITRREPLENALTVFTDGSS  
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DSKECTTPQMQLNLALYTLNLFNLIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDSKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEP  
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**SEQ ID 20**

MGFLQPGLPSPAMIPKDWPILLIIDLKDCFFTIPLAEQDCEKFAFTIPIANNKEPATRFQWKVLPOGMLNNSPTICQTFVGRALQPVREKFSDCYIIHY  
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KTPYQSAQRDELVAVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFVFYITHIRAHNTLPGPLTKANEQADL  
LVSSALIKAQELHALTHVNAGLKNFKDVTWKQAKDIVQHCTQCQVHLHLPTEAGVNPRGLCPNALWQMDVTHVPSFGRLSYVHVTVDTYSHFIWAT  
CQTGESTSHVKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTGIPYNSQQAIVERTNRNLTKTQLVKQKEGGDSKECTTPQMQLNL  
ALYTLNLFNLIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWLPTRHLKFYNEPIGDAKKRASEMVT  
PVTWMDNPIEYVNDSiWVPGPIDDRCPAKPEEEGMMINISIGYRPPICLGRAPGCLMPAVQNWLVEVPTVSPISRFTYHMVSGMSLRPRVNYLQD  
FSYQRSLKFRPKGKPCPKIEPKESKNTEVILWEECVANSAILXNNEGFTIIDDWAPRGQFYHNCSGQTCOPSCPSAQSPAVDSDLTESLDKHHKKLQ  
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VSV

**SEQ ID 21**

NKSRKRRNRESLLGAATVEPPKIPPLTWKTEKPVWVNQWPLPKQKLEALHLLANEQLEKGHIIEPSFPWNNSPVFIQKKSQKWRMLTDLRAVNAVIQ  
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CIDDILCAAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLMQIENRKIKPQKIEIRKDTLKLTLNDFQKLLGDINWRPTLGIPYAMSN  
LFSILRGDSDLNSKRMITPPEATKEIKLVEEKIQSAQINRIDPLAPLQLLIFATAHSPTGIIIQNTDLVEWSFLPHSTVKTFTLYLDQIATLIGQTRL  
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LVSSALIKAQELHALTHVNAGLKNFKDVTWKQAKDIVQHCTQCQVHLHLPTEAGVNPRGLCPNALWQMDVTHVPSFGRLSYVHVTVDTYSHFIWA  
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ALYTLNLFNLIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRGFACVSPGENQLPVWIPTRHLKFYNEPIRDAKKSTSAETE  
TSQSSTVDSQDEQNGDVRRTDEVAIHQEGRANLGTTEADAVSYKISREHKDTNPREYAACSLDDCINGGKSPYACRSSCS

**SEQ ID 22**

ATGAACCCATCAGAGATGAAAGAAAAGCACCTCCGGAGACGGAGACATCCAATCGACGCCGTTGACTACAAGATGAACAAAATGGTGACGT  
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CAGGAGTTGCTGATGGCCTCGCAAATCTAACCTGTCACTTGGGTTAAGACCATTGAAAGTACTACGATTATAATTCTCATATTACCTTGTG  
CCTGTTTGCTGTTAGTCTGCACTGAGGTGACCCAACAGCTCCGAAGAGACAGCGACCA

**SEQ ID 23**

ATGCAAAGAAAAGCACCTCCGGAGACGGAGACATCGCAATCGAGCACCGTGACTACAAGATAACAAAATGGTACGTCAGAAGAACAGATGA  
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 GTTAGTGTGCAAGGTGTACCCAACAGCTCCGAAGACAGCGACCATCGAGAACGGCCATGATGACGATGGCGGTTTGTGAAAAGAAAAGGGGA  
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**SEQ ID 24**

GTCACATGGATGGATAATCTATAGAAGTATATGTTAATGATAGTGTATGGTACCTGGCCCCACAGATGATCGCTGCCCTGCCAACACCTGAGGAAG  
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 AAGCCATTAAATTGATGCCAGGAACCTGAGGCAATTGCAAGGAGTTGCTGATGCCCTGCAAATTCAACCTGTCACTTGGTTAAGACCATCG  
 AAGTACTATGATTATAAAATCTCATATTAACTCTGCTGCTGTTGTGTTAGTGTCACTGCAAGGTGTACCCAACAGCTCCGAAGAGACAGCGAC  
 CATCGAGAACGGCCA

**SEQ ID 25**

ATGGGGCCTCTCCACCCGGGTTGCCCTCTCGGCCATGATCCAAAGATTGGCTTAAATTATAATTGATCTAAAGGATTGCTTTTACCATCC  
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 GGGAACTCTTAATAGCTCAACTATTGTCAGACTTTGTAGGTGAGCTCTCAACCGAGTGGAGAGAAAAGTTTCAGACTGTTATATTATTCTATT  
 ATTGATGATATTGTTATGTCAGAACAGAAAGATAATTGACTGTTATACATTCTGCAAGCAGAGGTGCAATGCTGGACTGGCAATAG  
 CATCGATAAGATCCTACCTCTCATTATTAGGGATGCAAGATAGAAAATAGAAAATTAGCCACAAAAAATAGAAAATAAGAAAAGA  
 CACATTAAACACTAAATGTTCAAAATTACTAGGGAGATTTAATTGGATTGCCCAACTCTAGGCATTCTACTTATGCCATGTCAAATTG  
 TTCTCTATCTAAGAGGAGACTCAGACTAAATAGTCAAAGAATATTAAACCCAGAGGCAACAAAGAAAATTAAATTAGTGGAGAAAATTCTAGT  
 CAGCGCAATAAAAGAATAGATCCCTAGGCCACTCCAACCTTTGATTTGCCACTGCACTTCCAAACAGGCATCATTCTCAAAATACTGA  
 TCTTGAGGAGTGGTATTCTCTCAGTACAGTAACTTACATTGACTTGGATCAAAAGTCTACATTAAATCGGTAGACAAGATTACGA  
 ATAACAAAATTATGGAATGACCCAGACAAATTGTTGCTCTTAACCAAGGAACAAGTTAGACAAGCCTTATCAATTCTGGTGCATGGCAGA  
 TTGGTCTGCTAATTGTTGGGACTTATTGATAATTCACTTACAGGAAACAAAGATCTTCACTTAAATTGACTACTTGGATTCTACCTAA  
 TACCAAGACGTGAACCTTAAAGAACAGACGAGTTGGTCACTACAGTGTACAAGATTGACCAACCTATCAATTATATCAGATTCTG  
 AAAACTCCATATCAATCGCTCAAAGAGACGAGTTGGTCACTACAGTGTACAAGATTGACCAACCTATCAATTATATCAGATTCTG  
 CATATGTAACAGGCTACAAGGGATGTTGAGACAGCTCTAATTAAATAGCATGGATGATCAGTTAAACCAGCTATTCAATTACAAAC

TGTAAGAAAAAGAAATTCCCATTTATATTACTTATTCGAGCACACATAATTACAGGGCCTTGACTAAAGCAATGAACAAGCTGACTTA  
 CTGGTATCATCTGCACTCATAAAAGCACAGAACACTCATGCTTGACTCATGTAATGCAGCAGGATAAAAACAAATTGATGTACATGGAAAC  
 AGGCAAAGATATTGACAAACATTGACCCAGTGTCAAGTCTACACTGCCACTCAAGAGGCAGGAGTTAATCCAGAGGTCTGTCTAATGC  
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 TGCCAAACAGGAAAGTACTCCCAGTGTAAAAACATTATTGCTGTTGCTGAATGGGAGTCCAGAAAAAAATCAAACAGACATGGAC  
 CAGGATATTGACTAAAGCTTCCAAAATTCTAACAGTGGAAAATTCAACACAGGAATTCTTATAATTCCAAGGCACAGGCATAGT  
 TGAAGAAACTAATAGAACACTCAAATTAGTTAAACAAAAGGGGAGAGCAGTAAGGAGTGTACACTCCTCAGATGCAACTTAATCTA  
 GCACCTCTATACTTTAAACATTATAGAACACTAGACTACTCTGCGAACACATCTACTGGTAAAAGAACAGCCCACATGAAG  
 GAAAACAAATTGGTGGAAAGATAATAAGACATGGAAATAGGGAGGTGATAACGTGGGAGAGGTTTGTGTTACCAGGAGA  
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 GTGTTGAGAAGTACCTACTGTCAGTCCCAGTCACTAGATTCACTGGTAAGGGGATGTCACTCAGGCCACGGTAAATTACAGAC  
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 GAAAATTGTAGATTGCTTACTTGCTATTGATTCAACTTTAATTGCAACACGGTATCTGCTGGTGGAGAGCAAGAGGGCGTGGATCCCTG  
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 GCTGAGCATCACTGGGACATGGTAGACGCCATCTACAGGAAGAGAACATCTACTTACATTGAAACTTCAAAATTAAAGAACAAATTTCGAA  
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 CCATTGGAACTACATGATTATAATCTCATATTAACTCTGCTGCTGCTGTTGCTGTTAGTCTGCAGGTGACCCACAGCTCCGAAGAGA  
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 GTGCTGTGAG

**SEQ ID 26**

MQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSLPMPAGAAAANYT  
 YWAYVPFPPLIRAVTWMNDNPTEVYVNDSVWVPGPIIDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNWLVEVPTVSPICRFTYHMVG  
 MSLRPRVNYLQDFSYQRSLKFRPKGKPCPKIEPKESKNTEVLWEECVANSILQNNEGTIIDWAPRGQFYHNCSQQTQSCSAQVSPAVDSDLT  
 ESLDKHKKLQLQDFSYWPWEWGEKGISTPRPKIVSPVSGPEHPELWRLLTASHHIRIWSGNQTLERDRKPFYTIDLNSLTVPQSCVKPPYMLVGN  
 IVIKPDQSQTITCENCRLLTCDSTFNWQHRIILVRAREGVWIIPVSMDRPWEASPSVHILTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAAVAGVA  
 LHSSVQSVNFNDWQKNSTRLWNQSISDQKLQINLRLQTVIWMGDRLMSLEHRFQLQCDWNTSDFCITPQIYNSEHHWDMVRRLQGREDNL  
 LDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLPVTWVKTIGSTIINLILILVLCFLVCRCTQQLRRDSDHRRERAMMTMAVLSKRKGG  
 NVGSKRDQIVTVSV

**SEQ ID 27**

MGPLQGPLSPAMIPKDWPILLIDLKDCFFTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPGMLNSPTICQTFVGRALQPVREKFSDCYIIHY  
 IDDLCAAEETDKLIDCYFLQAEVANAGLAIASDKIQSTPFHLYGMQIENRKIKPQKIEIRKDTLKLNDFOQLLDINWIRPTEGQMLV  
 FSILRGDSDLNSQRILTPPEATKEIKLVEEKIQSAQINRIDPLAPLQLLIFATAHSPTGIIIQNTDLEVSFLPHSTVKTFTLYLDQIATLIGQTRLR  
 ITKLCGNDPDKIVVPLTKEQVRQAFINSQAWQIGLANFVGLIDNHYPKTKIFQFLKLTTWILPKITRREPLENALTVFTDGSSNGKAAYTGPKERVI  
 KTPYQSAQRDELVAVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFPPYITYIRAHTNLPGPLTKANEQADL  
 LVSSALIKAQELHALTHVNAAGLNKFDVTWKQAKDIVQHCTQCQVHLPTQEACVNPRLCPNALWQMDVTHVPSFGRLSYVHVTVDTYSIFIWAT  
 CQTESTSHVKKHLLSCFAMVGPPEKIKTDNGPGYCSRAFKQFLSQWKISHTTGIPYNSQGQAVERTNRLKTLQVKQEGGDSEKCTTPQMQLN  
 ALYTLNFLNIYRNQTTTSQAEQHLLTGTGKNSPHEGKLIWWKDNKNKTWEIGKVTWGRGFACVSPGENQLPVWLPTRHLKFYNEPIGDAKKRASEMVT  
 PVTWMDNPPIEVYVNDSIWVPGPIIDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNWLVEVPTVSPISRFTYHMVSGMSLRPRVNYLQD  
 FSYQRSLKFRPKGKPCPKIEPKESKNTEVLWEECVANSILQNNEGTIIDWAPRGQFYHNCSQQTQSCSAQVSPAVDSDLTESLDKHKHKKLQ  
 SFYWPWEWGEKGISTPRPKIVSPVSGPEHPELWRLLTASHHIRIWSGNQTLERDRKPFYTVDLNSLTVPQSCVKPPYMLVGNIVIKPDQSQTIC  
 ENCRLLTCIDSTFNWQHRIILVRAREGVWIIPVSMDRPWEASPSVHILTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAAVAGVALHSSVQSVNFVN  
 DWQKNSTRLWNQSISDQKLQINLRLQTVIWMGDRLMSLEHRFQLQCDWNTSDFCITPQIYNSEHHWDMVRRLQGREDNLTLDISKLKEQIFE  
 ASKAHLNLVPGTEAIAGVADGLANLPVTWVKTIGSTIINLILILVLCFLVCRCTQQLRRDSDHRRERAMMTMAVLSKRKGGNVGSKRDQIVT  
 VSV

**SEQ ID 28**

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSLPMPAGAA  
 AANYTYWAYVPFPPLIRAVTWMNDNPTEVYVNDSVWVPGPIIDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNWLVEVPTVSPICRFTY

HMVSGMSLRPRVNYLQDFSYQRSLKFRPKGKCPKEIPKESKNTEVLWEECVANSAILQNNEFTIIDWAPRCQFYHNCSGQTQSCPSAQVSPAV  
DSDLTESLDKKHKKLQSFPWEWGEKGISTPRPKIVSPVSGPEHPELWRLTVASHHIRIWSGNQTLERDRKPFYTIDLNSILTVPQSCVKPPYM  
LVVGNIVIKPDSDTICENCRLTCIDSTFWQHRILLVRAREGVWIPVSMDRPWEASPSVHILTEVLKGVLNRSKRFIFTLIAVIMGLIAVTATAA  
VAGVALHSSVQSVNFVNDWQKNSTRWLNSQSSIDQKLANQINDLRQTVIWMDRLLMSLEHRFQLCDWNTSDFCITPQIYNESHHWDMVRRHLQGR  
EDNLTLISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLPVTWKTIGSTT1INLILILVCLFCCLLVCRCTQQLRRDSDHRRERAMMTMAVL  
KRKGGNVGKSQRDQIVTVSV

**SEQ ID 29**

AGTTCTACAATGAACCCATCAGAGATGCAAAGAAAAGCACCTCCGGAGACGGAGACATCGCAATCGAGCACCGTTGACTACAAGATGAACAAAA  
TGGTGACGTCAAAGAACAGATGAAGTTGCCATCCACCAAGAAGGCAGAGCCGCAACTTGGGCACAACAAAGAACGCTGACGAGCTTAGCTACAAA  
ATATCTAGAGAACACAAAGGTGACACAAACCCCAGAGAGTATGCTGCTGCAGCCTTGATGATTGATCAATGGTGGTAAGTCCTCATGCCTGCA  
GGA

**SEQ ID 30**

TCTGCAGGTGTACCCAACAGCTCCGAAGAGACAGCGACCATCGAGAACGGGCATGA

**SEQ ID 31**

MNPSEMQRKAPPRRRRHRNRAPlTHKMNMKVTSSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMILLAALMIVSMVSAGVPSNSSEE  
TATIENG

**SEQ ID 32**

MNPSEMQRKAPPRRRRHRNRAPlTHKMNMKVTSSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKSAGVPSNSSEETATIENG

**SEQ ID 33**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 34**

MNSLEMQRKVWRWRHPNRLASLQVYPAAPKRQQPARMGHSDDGGFVKKRGGYVRKREIRLSLCLRKGKHKKLHFVLY

**SEQ ID 35**

MNPSEMQRKAPPRRRRHRNRAPlTHKMNMKVTSSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKSAGVPSNSSEETATIENG  
KRGKCGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 36**

MNPSEMQRKAPPRRRRHRNRAPlTHKMNMKVTSSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKYLQVYPTAPKRQRPSRTGHDDGGFVEKKRGK  
CGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 37**

MNPSEMQRKAPPRRRRHRNRAPlTHKMNMKVTSSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMILLAALMIVSMVVYPTAPKRQR  
PSRTGHDDGGFVEKKRGKCGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 38**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 39**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 40**

MEYKNRHLKFYNEPIGDAKKRASTEMSAGVPSNSSEETATIENG

**SEQ ID 41**

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 42**

MNPSEMQRKAPPRRRRHRNRAPlTHKMNMKVTSSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKSAGVPSNSSEETATIENG

**SEQ ID 43**

MNPSEMQRKAPPRRRRHRNRAPlTHKMNMKVTSSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMILLAALMIVSMVSAGVPSNSSEE  
TATIENG

**SEQ ID 44**

MVTPVTWMDNPIEVYVNDSWWPGPTDDRCPAKPEEEGMMINISIVRYPPICLGRAPGCLMPAVQNCLQVYPTAPKRQRPSRTGHDDGGFVEKKR  
GKGCGEQRSDCYCVCVERSRRRLHFVLY

**SEQ ID 45**

MVTPVTWMDNPIEVYVNDSWWPGPTDDRCPAKPEEEGMMINISIGLQVYPTAPKRQRPSRTGHDDGGFVEKKRGKCGEQRSDCYCVCVERSRR  
RLHFVMC

**SEQ ID 46**

MNSLEMQRKVWRWRHPNRLASLQVYPAAPKRQQPARMGHSDDGGFVKKRGGYVRKREIRLSLCLRKGKHKKLHFDLY

SEQ ID 47

MNSLEMQRKAPPRRRRHNRNAPLTHKMNKMTSEEQMKLSSKKAEPPPTWAQLKLTQIATKYLENTKVTQTPESMILLAALMIVSMMVSLPMPAGAA  
AANYTYWAYVPFPPLIRAVTMDNPTEVYVNDSVWVPGPIDDRCPAKPEEEGMINISIGYHYPPICLGRAPGCLMPAVQNWLVEVPTVSPICRFTY  
HMSAGVPNSSEETATIENGPM

SEQ ID 48

MNPSEMQRKAPPRRRRHNRNAPLTHKMNKMTSEEQMKLPSTKKAEPPTWAQLKLTQLATKYLENTKVTLQVYPTAPKRQRPSRTGHDDGGFVEK  
KRGKGCGEKOERSDCYCVCVERSRRHLHFVMY

SEQ ID 49

MNPSEMQRKAPPRRRRHNRPALTHKMNKMTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVYPTAPKRQRPSRTGHDDGGFVEKKRGK  
CGKEOERSDPCYCVCVERSRRRLHVFVMY

SEQ ID 50

MNPSEMQRKAPPRRRRHNRNAPLTHKMNKMTSEEQMKLPSTKKAEPPPTWAQLKKLTQLATKYXLENTKVQTPESMLLAALMIVSMVVYPTAPKRQ  
RPSPTGHDDCGEVEKKRGKCGEKOERSDCYCVCVERSRRHLFHVMY

SEQ ID 51

SEQ ID 51  
GCCCCGGAAATTCTGACTCTAGGCCATTGCATACGTTGATCTATATCATATAATGTACATTATATTGGCTATGTCCAATATGACC GGCCATGGTGA  
CATTGATTATTGACTAGTTATTAACTAGTAATCAATTACGGGGTCAATTAGTCATAGCCCATAATATGGAGTCCGCTTACATAACTTACGGTAAATG  
GCCCCCTGGCTGACC GCCCCAACGGACCCCGCCCATGACGTCAATAATGACGTATGTTCCATAGTAACGCCAATAGGGACTTCCATTGACGTCA  
ATGGGTGGAGTATTACGGTAAACTCCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTCCGCCCCATTGACGTCAATGACGGTAAATGG  
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TTGGCAGTACACCAATGGCGTGGATAGCGGTTGACTCACGGGATTCCAAAGTCTCCACCCATTGACGTCAATGGAGTTGGTGGCACC  
AAATCAACGGGACTTCAAATGCTGAATAACCCGCCCGTGA CGCAAATGGCGGTAGCGTGTACGGTGGGAGGTATATAAGCAGAGCT  
CGTTTAGTGAACCCCTGAGATGCCGAGACCCATCCACGGTTTTGACCTCATAGAACAGACCCGGA CATTGCCAGCTCCCGGCCGGAAAC  
GGTGCA TGGAACCGGGATTCCCGTGCAGAGTGA CTAAGTACCGCCTATAGACTCTATAGGCACACCCTTGGCTCTTATGCATGCTA TACT  
GTTTTGGCTGGGGCCTATACACCCCGCTCCATTGCTATAGGTGATGGTATAGCTTAGGCTATAGGTGTTGGTTATTGACCA TATTGACCA  
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GGTCCCAGCCTCCAGCGGCTCATGGCCTCGGAGCTCCCTGCTCTAACAGTGGAGGCCAGACTTAGGCACAGCACATGCCACACCAG  
TGTGCCGACAAGGCGTGGCGTAGGGTATGTGCTGAAAATGAGCTGGAGATGGGCTCGCACCGCTGACCGAGATGGAGACTTAAGGCAGCG  
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GAGCAGTACTCGTGTGCCGCGCGCACCAGACATAATGCTGACAGACTAACAGACTGTTCTTCCATGGGCTTTCTGCAGTCACCGTCg  
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TCGAAGGCCAACCTTCATAGAAGGGCGGTGGAATCGAAATCTCGTGTGGCAGGGTGGCTGCTGGCTCATTTGCAACCCAGGTC  
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CGGCCATTTCACCATGATATTGCAAGCAGGATCGCCATGGGTGAGCGAGATCTCGCGTCGGCAGTGGCCCTTGAGCTGGCGAAC  
GTTCGCTGGCGAGCCCTGATGCTCTCGTCCAGATCATCTGATCGACAAAGACGGCTTCCATCCGAGTACGTCGCTCGATGCGATGTT  
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GATGACAGGAGATCTGCCCCGGACTCGCCCATAGCAGCGAGTCCCTCCGCTTCACTGACAACTGCGAGCACAGCTGCGCAAGGAACGCC  
TCGTGGCAGGCCAGGATAGCCGCGTGCCTCGTCACTGAGGACCGGACAGGTCGGCTTGACAAAAAGAACCGGGCCCCCTGCC  
TGACAGCCGGAACACGGCGCATCGAGCAGGCCATTGTCAGTGTGCCCAGTCAGCGGAATAGCCTCTCCACCCAAAGCGGGCGGAGAACCTGCG  
TGCAATCCATCTGTTCAATCATGCGAAACGATCTCATCTGCTCTTGATGAGCTTGATCCCTGCCATCAGATCCTGGGGCAAGAAA  
CCATCCAGTTTACTTGCAAGGGTCCCAACCTTACAGAGGGCGCCCGACTGGCAATTCCGGTTGCTGCTGCCATAAAACGCCAGTCA  
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CATCCGGG  
CAGCACCGTTCTCGCGACTGGCTTCTACGTGTCCGTTCCCTTACAGGCCATTGCGCCCTGAGTGTGCGCAGCGTGAAGCT  
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TGCCTGGTGAATACCGCAGATGCGTAAGGAGAAAATACCGCATCAGGCCCTTCCGCTTCCGCTACTGACTCGTGCCTCGTCT  
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CAAAGGCCAGGAAACGTAAGGCCGCGTTGCTGGCTTTCCATAGGCTCCGCCCTGACGAGCATCACAAAATCGC  
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CTTACCGGAT

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CAGCAGCCACTGGTAACAGGATTAGCAGAGCAGGTATGTAGGCGGTCTACAGAGTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGGAC  
AGTATTGGTATCTGCCTCTGCTGAAGCCAGTACCTCGAAAAAGAGTTGGTAGCTTGAATCGGCAAACAAACCACCGCTGGTACGGTGGT  
TTTTGTTGCAAGCAGCAGATTACGCGAGAAAAAGGATCTAACAGAGATCTTGTATCTTCTACTGAACGGTATCCCACCGAATTGC  
G

**SEQ ID 52**

GCCCGGAATTTCGACTCTAGGCCATTGCATACGTTGTATCTATATCATATAATATGTACATTATGGCTCATGCCAATATGACCGCCATGTTGA  
CATGATTATTGACTAGTTATAATAGTAATCAATTACGGGTCAATTACTCATACCCATATAATGGCTCATGCCAATATGACCGCCATGTTGA  
GCCGCTGGCTGACGCCAACGACCCCCCCCATTGAGCTCAATAATGACGTATGTTCCCATAGTAACGCCAACAGGACTTCCATTGACGTCA  
ATGGGTTGGAGTATTACGGTAAACTGCCCACGGCAGTACATCAAGTGTATCATATGCCAAGTCCGCCCCCTATTGACGTCAATGACGGTAAATGG  
CCCGCTGGCATTATGCCAGTACATGACCTTACGGGACTTCTACTGGCAGTACATCTACGTATTAGTCATGCTATTACCATGGTATGCCG  
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AAATCAACGGGACTTCCAAATGTCGTAATAACCCCGCCCGTGAACGCAAATGGCGTAGGCGTAGGGAGGTCTATAAGCAGAGCT  
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GGTGCATTGGAACGCGATTCCCGTGCAAGAGTGACGTAAGTACCGCTATAGACTCTATAGGCACACCCCTTGGCTCTTATGCATGCTA  
GTGTTGGCTGGGCTATACACCCCGCTTCTTATGGCTATAGGTGATGGTATAGCTTAGGCTATAGGTGTTGCTTATTGACCAATTATGAC  
TCCCTATTGGTGACGATACTTCCATTACTAATCCATAACATGGCTTTGCCACAATCTCTATTGGCTATATGCCAATACTCTGCTTCAG  
AGACTGACACGACTCTGTATTTTACAGGATGGGTCCATTATTACAAATTCACATATAACACCGCTCCCGGAGCTCCACATCCGAGC  
TATTAAACATAGCGTGGATCTCCACCGAATCTGGTACGTGTTCCGACATGGCTCTCTCCGGTAGCGGGAGCTTCCACATCCGAGC  
GGTCCCATGCCCTCAGCGCTCATGGTCTGGCAGCTCCTGCTCTAACAGTGGAGGCCAGACTTAGGCACACGACAATGCCACCCAC  
TGTGCGCACAAGCGTGGCGTAGGGTATGTGCTGAAAATGAGCTCGAGATTGGCTCGCACCGCTGACCGAGATGGAAGACTTAAGGAGCG  
GAGAAGAAGATGCAAGCAGCTGAGTTGTATCTGATAAGAGTCAGGTAACCTCCGTTGGGTCTGTTAACGGTGGAGGGCAGTGTAGTCT  
GAGCAGTACTCGTGTGCTGCCGCGCCACAGACATAATAGTCGACAGACTAACAGACTGTTCTTCCATGGTCTTCTGCACTGCC  
tcgacgcaccatgaacccagcgagatgcagcgaaggcccccccgccgcgcaccgcacccgcggccactggccatggccatggcc  
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agcgcacgcggcccgccacgcacgcacggcgatggccatggccatggccatggccatggccatggccatggcc  
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TATCGGATCCACTACGCTTAGAGCTCGTGTGATCAGCTCGACTGTGCTTCTAGTGCAGCCATCTGTTGCCCCCTCCGTGCTTCC  
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GTGGGGCAGGACAGCAAGGGGAGGATTGGGAAGACAATAGCAGGGGGTGGCGAGAAACTCCAGCATGAGATCCCCCGCTGGAGGATCATCC  
CCGGCGTCCGGAAAAGATTCCGAAGCCAACCTTCTAGAGAAGCGGGTGGGATCGAAATCTCGTGTGGCAGGTGGCGCTTGGT  
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**SEQ ID 55**

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AAAGTCAGAGGGTGGCGAACCCGACAGGACTATAAAGATACCAAGGGTTTCCCCCTGGAAAGCTCCCTGTCGCTCTCTGTTCCGACCTGCC  
ACCGGATAACCTGTCGCCCTTCTCCCTCGGAAAGCGTGGCCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTGGCTAGGTCGCTCC  
AGCTGGGCTGTGTCAGAACCCCCCGTTCAGCCGACCGCTGCCCTATCCGTAACTATCGTCTGAGTCCAAACCGTAAGACACGACTTATC  
GCCACTGGCAGGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAAGCGGTCTACAGAGTTCTGAAAGTGGTGGCTAACTACGGCTACACT  
AGAAGGACAGTATTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTCGGAAAGAGTTGGTAGCTCTGATCCGGCAACAAACCACCGCTGGTA  
GCCGGTGTGTTTGCAAGCAGATTACCGCAGAAAAAGGATCTCAAGAAGATCCTTGTACTGAACGGTGTGACCCCCAC  
GGAATTGCG

SEQ ID 56

caagaccgacaacggccccggctactgcagaaggccttccagaagttcctgagccagtggaaagatcagccacaccacccgcattccctacaacacgc  
 caggcccaggccatcggtggagcgcaccaacccgaccctgaagaccctggtgaagcagaaggaggccggcagacagcaaggagtgcaccacccccc  
 agatgcagctgaacctggccctgtacaccctgaacttcctgaacatctaccgcaaccagaccaccaccagcggcagcgcacccgtaccggcaagaa  
 gaacagccccccacgaggcaagctgatctgtggaaaggacaacaagaacaagacccgtggagatcggcaagggtgatcacctggggccggcttcgccc  
 tgcgtgagccccccggcagaaccagctgcccgtgtggatccccacccgcacccctgaagttctacaacagagccatccgcgcaccccaagaagagcacca  
 gcgcgcagaccgagaccagccagcgcacccgtggacagccaggcagcgcacccgtggatcacaagatcagccgcagcacaaggccgacccaaccccccgcagat  
 gcccctgcagccgtggacactgcatacggccggcaagagccctacgcctgcgcagcgcagcttaagaattcAGACTCGAGCAAGTCTA  
 GAAAGCCATGGATATCGGATCCACTACGCGTTAGAGTCGCTGATCAGCCTCGACTGTGCCTCTAGTTGCCAGGCATCTGTGTTGCCCTCCCC  
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 AGGATCATCCAGCCGGCTCCCGAAAAAGTCCGAAGCCCAACCTTCATAGAAGCGGCGTGAATCGAAATCTCGTATGGCAGGTTGGG  
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 CCAGCCGGCCACAGTCGATGAATCCAGAAAAGCGGCCATTTCACCATGATATTGCGCAAGCAGGCGATGCCATGGGTACGACGAGATCCTCGCC  
 GTCGGGCATGCGCGCTTGAGCCTGGCAACAGTTGCGCTGGCGAGCCCTGATGCTCTCGCAGATCATCTGATCGACAAGACCGGCTTCC  
 ATCCGAGTACGTCTCGCTCGATGCGATGTTGCGTTGGTGAATGGCAGGTAGCCGGATCAAGCGTATGCAAGCCGCATTGATCAGCC  
 TGATGGATACTTCTCGGCAGGAGCAAGGTGAGATGACAGGAGATCTGCCCCGGACTTCGCCCCATAGCAGCAGTCCCTCCGCTTCAGTGAC  
 AACGTCGAGCACAGCTGCGCAAGGAACGCCGTCGTCGAGCCACGATAGCCGCTGCGCTCGCAGTTCAAGGGCACCGGACAGTCG  
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 GCCTCTCCACCCAAGCGGCCGAGAACCTCGTGCATCCATCTGTTCAATCATGCAAACGATCTCATCTGTCTCTGATCAGATCTGATCC  
 CCTGCGCCATCAGATCTTGGCGCAAGAACGCCATCCAGTTACTTGCAAGGGCTCCCAACCTTACAGAGGGCGCCCGAGCTGGCAATTCCGGT  
 TCGCTGCTGTCATAAAACGCCAGTCTAGTATGCCATGTAAGCCACTGCAAGCTACCTGCTTCTCTTGCGCTTGCGTTTCCCTTGTC  
 AGATAGCCCAGTAGCTGACATTGACATCCGGGTGAGCAGCTTCTGCGACTGGTTCTACGTTGTCGCTTCTAGCAGCCCTTGCGCCCTGA  
 GTGCTGCGCGAGCTGAAGCTAATTGTTAAATCAGCTCATTTAACCAATAGGCCAATCGCAAATCCCTTATAAA  
 TCAAAAGAACAGCCGAGATAGGGTTGAGTGTGTCAGCTTGAACAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAGGGAAAA  
 CCGCTATCAGGGCGATGGCCGATCAGCTATGCGGTGAAATACCGCACAGTGCAGGAGAAAATACCGCATCAGGCGCTTCCGCTTCC  
 TCGCTCACTGACTCGCTGCGCTCGGTGCTGCGCGAGCGGTATCAGCTACTCAAAGCGTAATACGTTATCCACAGAACAGGGATA  
 ACCGAGGAAAGAACATGTGACCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAGGCCGTTGCTGGCTTCCATAGGCTCCGCCCTGA  
 CGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAACCCGACAGGACTATAAGATACAGGCGTTCCCTGGAAAGCTCCCTGCGC  
 TCTCTGTTCCGACCCCTGCGCTTACCGGATACCTGTCGCCCTTCTCGGAGCGTGGCTTCTCATAGCTCACGCTGTAGGTATCTCA  
 GTTGGGTGAGTCGTTGCTCCAAGCTGGGTGTCGACGAACCCCCGTTGAGCAGGCTGCGCTTATCCGTAATCTGCTTGAGTC  
 CAACCCGTAAGACGACTTATGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGAGGGCTACAGAGTTGAAG  
 TGGGGCTAATACGGCTACACTAGAAGGACAGTATTGTTGATCTGCGCTCTGCTGAGGCCAGTTACCTCGAAAAGAGTTGGTAGCTTGAT  
 CCCGAAACAAACCACCGCTGGTAGCGGTTTTTGCAAGCAGATTACCGCAGAAAAAGGATCTCAAGAACATCCTTGATCT  
 TTACTGAGCGGATCCCCACCGGAATTGCG

**SEQ ID 57**

ATGAACCCATCAGAGATGCAAAGAAAAGCACCTCCGCGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAAGATGAACAAAATGGTGACGT  
 CAGAAAGAACAGATGAAGTGGCATCCACCAAGAACGGCAGAGCCCAACTTGGGCACAACCTAAAGAGCTGACCCAGTTAGCTACAAAATATCTAGA  
 GAACACAAAGGTGACACAAACCCAGAGAGTATGCTGCTGAGCCTTGTGATTGATCAATGTTGCTCTGAGGTGACCCACAGCTCCGAAGAG  
 ACAGCGACCATCGAGAACGGCCATGA

**SEQ ID 58**

ATGAACCCAGCGAGATGCGAGCGCAAGGCCCCCCCCCGCCGCCACCGCAACCGCGCCCCCTGACCCACAAGATGAACAAAGATGGTGACCA  
 GCGAGGAGCAGATGAAGCTGCCAGCACCAAGAACGGCGAGCCCCCCTGGGCCAGCTGAAGAGCTGACCCAGCTGGCCACCAAGTACCTGGA  
 GAACACCAAGGTGACCCAGACCCAGAGAGCATGCTGCTGGCGCCCTGATGATCGTGAAGCATGGTAGCGCCGGCTGCCAACAGCAGCGAGGAG  
 ACCGCCACCATCGAGAACGGCCCCGTTAA

**SEQ ID 59**

ATGAACCCATCGGAGATGCAAAGAAAAGCACCTCCGCGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAAGATGAACAAAATGGTGACGT  
 CAGAAAGAACAGATGAAGTGGCATCCACCAAGAACGGCAGAGCCCAACTTGGGCACAACCTAAAGAGCTGACCGAGTTAGCTACAAAATATCTAGA  
 GAACACAAAGGTGACACAAACCCAGAGAGTATGCTGCTGAGCCTTGTGATTGATCAATGTTGCTCTGAGGTGACCCACAGCTCCGAAGAGACAGCGA  
 CCATCGAGAACGGCCATGATGACGATGGGGTTTGTCGAAAAGAAAAGGGGAAATGTGGGAAAAGCAAGAGAGATCAGATGTTACTGTC  
 GTGTAGAAAGAAGTAGACATAGGAGACTCCATTGTTGTTACTAA

**SEQ ID 60**

ATGAACCCAGCGAGATGCGAGCGCAAGGCCCCCCCCCGCCGCCACCGCAACCGCGCCCCCTGACCCACAAGATGAACAAAGATGGTGACCA  
 GCGAGGAGCAGATGAAGCTGCCAGCACCAAGAACGGCGAGCCCCCCTGGGCCAGCTGAAGAGCTGACCCAGCTGGCCACCAAGTACCTGGA  
 GAACACCAAGGTGACCCAGACCCAGAGAGCATGCTGCTGGCGCCCTGATGATCGTGAAGCATGGTAGCGCCGGCTGCCAACAGCAGCGAGGAG

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CCCGAGCCGACCGGCCACGACGACGACGGCGCTTCTGTGGAGAAGAAGCGCGGAAGCAGGAGCGCAGGACTGCTACTGCGTGT  
GCGTGGAGCGCAGCCGCCACCGCCGCCTGCACCTCGTGTGCTACGCTTAA

SEQ ID 61

ATGGGGCAACTAAAAGTAAATTAAAGTAATATGCCCTTATCTCAGCTTATTAAAATCTTTAAAAAGAGGGGGAGTTAAGTATCTACAA  
AAAATCTAATCAAGCTATTTCAAAATAAGAACATTGCCCCATGGTTCCAGAACAGGAACCTTAGATCTAAAGATTTGAAAAGAATTGGTAA  
GGAACCTAAACAAAGCAGGTAGGAAGGGTAATATCATTCCACTACAGTATGGAATGATTGGCCATTATAAGCAGCTTGAACCATTCAAACA  
GAAGAAGATAGCGTTCTAGTTCTGATGCCCTGAAAGCTGTATAAGATTGTAATGAAAACACAAGGAAAAATCCCGAAAGAAACCGAAGGTT  
TACATTGCGAATATGTAGCAGGCCGTAATGGCTCAGTCACGCAAAATGTTGACTATAATCAATTACAGGAGGTGATATATCCTGAAACGTTAAA  
ATTAGAAGGAAAAGGTCCAGAATTAGTGGGCCATCAGACTAAACCACGAGGCACAAGTCTCTCCAGCAGGTCAAGTGCTGTAAACATTACAA  
CCTCAAAAGCAGGTTAAAGAAAATAAGACCCAACGCCAGTAGCCTATCAACTAGGCCCTCCGGCTGAATTCAAGTATGGCCACCCCCAGAAAGTC  
AGTATGGATATCCAGGAATGCCCTCACAGGGCAGGGGCCATACCTCAGCCGCCACTAGGAGACTTAATCTACGGCACACCTAGTAG  
ACAGGGTAGTAAATTACATGAAATTATTGATAAAATCAAGAACAGGAGAGACTAGGAGCATGGCAATTCCAGTAACGTTAGAACCGATGCCACCT  
GGAGAACGGAGCCAAAGAGGGAGAGCCTCCCAAGCTGAGGCCAGATAACAGTCTTTTCGATAAAAAAGCTAAAGATATGAAAGAGGGAGTAAAC  
AGTATGGACCCAACTCCCCATATGAGGACATTATTAGATTCATTGCTCATGGACATAGACTATTGCTATGATTGGAGATTCTGGCAAATC  
GTCTCTCACCCCTCAATTTCACATTAAAGACTTGGTGGATTGATGGGTACAAGAACAGGTCCGAAGAAATAGGGTGCCTAACCTCCAGTT  
AACATAGATGCAGATCAACTATTAGGAATAGGTAAAAATTGGAGTACTATTAGTCACAAAGCATTATGCAAAATGAGGCCATTGAGCAAGTTAGAG  
CTATCTGCCCTAGAGCCTGGGAAAAAAATCCAAGACCCAGGAAGTACCTGCCCTCATTAATACAGTAAGACAAGGTTCAAAAGGCCCTATCCTGA  
TTTGTCAGGCTCCAAGATTTGCTCAAAGTCAATTGCTGATGAAAAGGCCGTAAGGTCAATTGAGGTTGATGGCATATGAAAACGCCAAT  
CCTGAGTGTCAATCAGCATTAAAGCCATTAAAGGAAAGGTTCTGCAGGATCAGATGTAATCTCAGAATATGTAAGGCTGTGATGGAATCGGAG  
GAGCTATGCATAAAAGCTATGCTTATGGCTCAAGCAATAACAGGAATTGTTAGGAGGACAAGTTAGAACATTGGAAGAAAATGTTATAATTGTTG  
TCAAATTGGTCACTAAAAAGAACATTGGCTAGTCATGCTCAAATTGATGAAAGGCCAACATTGTCGGGAAAGCAGGAAAGGGGCCAGC  
CTCAGGCCCAACAAACTGGGCATTCCAAATTGCCATTGCTCAGGTTTCAGGGACAACAAACCCCCACTGCTCAAGTCTTCAAGG  
AATAAGCCAGTTACCCACAAATACAACAAATTGTCCCCCGCCACAAGGGCAGTGAGCAGCAGTAG

SEQ ID 62

SEQ ID 63

ATGTCGGGCAACCATTGTGGGAAACGAGCAAGGGCCAGCTCAGGCCAACAAACTGGGGCATTCAGGCATTGTTCTCAGGGT  
TTTCAGGGACAACAACCCCCACTGTCCAAGTGTTCAGGATAAGCCAGTACACAAATACACAATTGTCCTCCGCCAACAGCGGAGTGCAGC  
AGTAGATTATGTACTATACAAGCAGTCCTGTTCCAGGGAGCCCCAACAAAAACCCCACAGGGTATATGGACCCCTGCTAAGGGGACT  
GTAGGACTAATCTGGGACGATCAAGCTAACTAAAAGGAGTCAAATTCAACTAGTGTGGTGATTAGACTATAAAGGCGAAATTCAATTGG  
TTATTAGCTCTCAATTCTTGGAGTGCAGTCCAAGAGACAGGATTGCTCAATTATTACTCCTGCCATACATTAAAGGGTCAAATAGTGAATAAA  
AAGAATAGGAGGGCTTGGAAAGCACTGATCCAACAGGAAAGGCTGCATATTGGCAAGTCAGGCTCAGAGAACAGACCTGTTGTAAGGCCATTATT  
CAAGGAAAACAGTTGAAGGGTGGTAGACACTGGAGCAGATGCTCTATATTGCTTAAATCAGTGGCCAAAAAAATTGGCTAAACAAAAGGCTG  
TTACAGGACTTGTGCGCATAGGCACAGCCTCAGAAGTGTATCAAAGTACGGAGATTTCATGTTAGGCCAGATAATCAAGAAAGTACTGTTCA  
GCCATGATTACTCAATTCTCTTAACTGTGGGTCAGATTTTACATGTTAGGCCAGATAATCAAGAAAGTACTGTTCA

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ACGAGTCAAAAAATCATGCCAACAGATGGGATATACCAAGGAAAGGGACTAGGGAAAATGAAGATGGCATTAAATTCCAGTTGAGGCTAAATAA  
ATCAAGAAAGAGAAGGAATAGGAATCCTGCTAG

**SEQ ID 64**

ATGTGGGCACCATCGTGGGCAAGGCCAACGGCCCCCAGCCGCCACCACCACTGGGCATCCCACAGGCCATCTGCAGCAGGGCT  
TCAGGGCACCCACCCACCGTGCCAGCGTGAAGGCCAACAGCCGCTGCCAGCAGCTGAGCCGCCACAGCGGAGCGCC  
CGTGGACCTGTGACCATCCAGGCCGTGAGCCCTGCTGCCGCCAGAACAGCCCCACCGCGTGTACGCCCTGCCAAGGGCACC  
GTGGCCTGATCTGGGCCAGCAGCCGTAACCTGAAGGGCGTGCAGATCCACACCAGCGTGGAGCAGCAGTACAAGGGCAGATCCAGCTGG  
TGATCAGCAGCAGCATCCCTGGAGGCCAGCCCCCGGCCACCGCATGCCAGCTGCTGCTGCCCTACATCAAGGGCGCAACAGCGAGATCAA  
GCCATCGGCCCTGGCACCGACCCAGGCCCTACTGGGCCAGGCCAGTGAGCGAGAACCGCCCGTGTGCAAGGCCATCATC  
CAGGGCAAGCAGTTCGAGGGCTGGACACCAGGCCAGCTGAGCATCATGCCCTGAAACAGTGGCCAAGAACTGGCCAAGCGAAGGCC  
TGACCGCCCTGGTGGCATGGCACCCAGCAGGAGGTGACAGGACCCAGAGATCTGCACTGCCCTGGCCAGACAACCAGGAGGACCCGTGCA  
GCCATGATCAGCAGCATCCCTGAACCTGTGGGCCGACCTGCTGAGCAGTGGGCCGAGATCACCATGCCGCCAGCTACAGCCCC  
ACCAAGCCAGAAGATCATGCCAACAGATGGCTACATCCCCGCCAGGCCCTGGCAAGAACGAGGACGGCATCAAGATCCCCGTGGAGGCCAAGATCA  
ACCAAGGAGGCCAGGGCATGGCAACCCCTGCGCTAA

**SEQ ID 65**

ATGAATAAATCAAGAAAGAGAAGGAATAGGAATCCTGCTAGGGGCCACTGTAGAGCCTCTAACCCATACCATTAACTTGGAAAACAGAAA  
AACAGTGTGGTAAATCAGTGGCGCTACCAAAACAAAACCTGGAGGTTTACATTATTAGCAATGAACAGTAGAAAAGGTCTATTGAGCC  
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CCATCCCTCTGGCAGAGCAGGATTGCGAAAAATTGCTTACTATACAGCCATAAATAATAAGAACAGGCCAGGTTAGTGGAAAGGT  
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CATTGATTGATGATATTGCTGCGAACAGAAAGATAATTGACTGTTACATTCTGCAAGCAGAGGTGCAATGCTGGACTGG  
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TACTGATCTGGAGTGGTATTGCTTCCACAGTACAGTTAACAGCTTACATTGACTGTTACATTGCAAGTACATTGCACTTATGGTCA  
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TAAAATTACAGACGTGAACCTTAGAAAATGCTCTAACAGTATTGATGGTCCAGCAATGAAAAGCAGCTTACACAGGACCGAAAGAACGA  
GTAATCAAACCTCCATATCAATCGGCTCAAAGAGCAGAGTGGTGCAGTCATTACAGTGTACAAGATTGACCAACCTATCAATTATATCAG  
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GACTTACTGGTATCTGCACTCATAAAGCACAAGAACTCATGCTTACTCATGTAATGAGCAGCAGGATTAAAACAAATTGATGTCACAT  
GGAAACAGGAAAGATATTGACAACATTGACCCAGTGTCAAGTCTACACCTGCCACTCAAGAGGCAGGAGTTAACCCAGGGCTGTG  
TAATGCATTATGCCAAATGGATGTCAGCATGTTGAGATTATCATATGTTACGTAACAGTTGATACTTATTACATTTATG  
GCAACTTGCACACAGGAGAAAGTACTTCCATGTTAAAAAACATTATTGCTTGTGTAATGGAGTCCAGAAAAAATCAAACACTGACA  
ATGGACCAGGATATTGAGTAAAGCTTCCAAAATTCTAAGTCAGTGGAAAATTTCACATACAAACAGGAATTCTTATAATTCCAAAGGACAGGC  
CATAGTGGAAAGAAACTAATAGAACACTCAATTAGTTAACAAAAGAAGGGGAGACAGTAAGGAGTGTACCTCAGATGCAACTT  
AACTAGCACTCTAACTTTAACATTAGAACACTACTCTGCAAGAACACATCTTACTGGTAAAAGAACAGGCCAC  
ATGAAGGAAAACAAATTGGGAGAAGATAATAAAAGACATGGGAAATTAGGAAGGTGATAACGTGGGGAGGGTTGCTGTGTTACC  
AGGAGAAAATCAGCTTCTGTTGGATACCCACTAGACATTGAGTTCTACAATGAACCCATCAGAGTCAAGAACAGGACACTCCGGAGACG  
GAGACATCGCAATCGAGCACCGTTGACTCACAAGATGAGAACAAAATGGTACGTCAGAGAACAGATGAGTGCACATCCACCAAGAACGG  
CCAACCTGGCACAACAAAGAGCTGACCGAGTTAGCTACAAATATCTAGAGAACACAAAGGTGACACAAACCCAGAGAGTATGCTG  
CCTGATGATTGATCAATGGGTAAGTCTCCATGCCCTGAGGAGCAGCTGAGCTAA

**SEQ ID 66**

ATGAACAAGAGGCCAACGGCCAGAGGCCCTGCTGGGCCGCCACCGTGGAGCCCCCAAGCCCATCCCCCTGACCTGGAGGCC  
AGGCCGTGTGGTGAACCGAGTGGCCCTGCCAACGAGCTGGAGCCCTGCACCTGCTGGCAACGAGCAGCTGGAGAAGGCCACATCGAGCC  
CAGCTCAGCCCTGGAACAGCCCCGTGTCGATCCAGAAGAACGCGCAAGTGGCGCATGTCAGGCCACCTGCCGCGTGAACGCCGTGATC  
CAGCCCATGGGCCCTGCAAGCCGCCCTGCCAGCCCCCATGATCCCAAGGACTGGCCCTGATCATCATGCCCTGACCTGAAGGACTGCTTCTCA  
CCATCCCCCTGCCAGCAGGACTGGGAGAAGTCTGCTTCAACCATCCCCGCCATCAACAAACAGGCCACCCGCCACCGCTTCAAGTGGAGGTGCT  
GCCAGGGCATGTCAGCAGCCCCACCATGTCAGACCTTCGCTGGGCCGCCCTGCAAGGCCAGGAGAAGTCTAGCAGACTGCTACATCATC  
CACTGCATCGACGACATCTGTCGCGCCGGAGACCAAGGACAAGCTGATGACTGCTACACCTCTGCAAGGCCAGGAGTGGCAACGCCG  
CCATGCCAGGACAAGATCCAGACGCCAGCACCCCTTCCACTACCTGGCATGCAAGATGCAAGAACGCCAGAAGATCAAGCCCAAGAACG  
CAAGGACACCCCTGAGGACCTGAAACGACTTCCAGAAGCTGCTGGGAGCATCAACTGGATCCGCCACCCCTGGCATCCCCACCTACGCCATGAGC  
AACCTGTTGAGCATCTGCGCCGACAGCGACCTGAAACAGCAAGCGCATGCTGACCCCGAGGCCACCAAGGAGATCAAGTGGAGGAGAAGA  
TCCAGAGGCCAGATCAACCGCATGCCACCCCTGGGCCCTGCAAGCTGCTGATCTGCCACCGGCCACAGCCCCACCGGCATCATCCAGAA

CACCGACCTGGTGGAGCTTCTGCCACACGACCGTGAAAGACCTTCACCCGTGACCTGGACCAGATGCCACCTGATCGCCAGACCCGC  
 CTGCGCATCATCAAGCTGTGGCAACGACCCGACAAGATCGTGGTGGCCTGACCAAGGAGCAGGTGCGCCAGGCCATCAACAGCGCC  
 GGAAGATCGGCTGGCCAACCTCGTGGCATCATCGACAACCAACTACCCCAAGACCAAGATCTTCAAGTTCAGTGAAGCTGACCACCTGGATCTGCC  
 CAAGATCACCCGCCGCGAGCCCTGGAGAACGCCCTGACCGTGTACCGACGGCAGCAGCAACGGCAAGGCCCTACACCGGCCCCAAGGAGCGC  
 GTGATCAAGACCCCTACCAAGAGCGCCAGCGCCAGCTGTGGCTGATCACCGTGCAGGACTTCGACCCAGGCCATCAACATCATCAGCG  
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 GCAGACCGTGCAGGCCACCTCCCTCTACATCACCCACACCAACCTGCCGGCCCTGACCAAGGCCAACGAGCAGGCC  
 GACCTGCTGGTGAAGGCCAGGAGCTGACGCCCTGACCCAGCTGAACGCCGGCTGAAGAACAGTGCAGCTGACCT  
 GGAAGCAGGCCAGGACATCGCAGCACTGCACCCAGTGCAGGAGCTGACCCAGGCCACCTGACCTGACCCAGGCC  
 CAACGCCCTGTGCAGATGGACGTGACCCAGCTGCCAGCTGCCAGCTGACCTGACCTGACCTGACCCAGGCC  
 GCCACCTGCCAGCCGGCAGAGCACCGCACGTGAAGAAGCAGCTGACCTGACCTGACCCAGGCC  
 ACGGCCCCGGCTACTGCAGCAAGGCCCTCAGAAGTCTGAGCCAGTGAAGATCAGCCACACCACCGC  
 CATCGTGGAGGCCACCAACCCACCTGAAGACCCAGCTGGTGAAGCAGAAGGAGGGCGGCACAGCAAGGAGTGCACCA  
 AACCTGGCCCTGATCACCCCTGAACATCTACCGCAACCAGACCACCCAGCGCGAGCACCTGACCGCAAGAAGAACAGCCCC  
 ACGAGGGCAAGCTGATCTGGAGGACAACAAGAACAGACCTGGAGATCGGCAAGGTGATCACCTGGGGCCGGCTTCGCCTGCGTGA  
 CGCGAGAACCGACTGCCGTGTGGATCCCCACCCGACCTGAAGTCTACAAACGAGCCATCCCGAGCAGGCC  
 GAGACCAGCCAGAGCAGCACCGTGGACCCAGGAGCAGAACGGCAGCTGCCCGACCCAGGAGTGGCATCCACCAGGAGGGCGGCC  
 CCAACCTGGGACCACCAAGGAGGCCAGCCGTGAGCTACAAGATCAGCCGAGCACAAGGGC  
 CCTGGACACTCATCACGGCGCAAGACCCCTACGCCCTGCCGAGCTGCAGCGTTAA

**SEQ ID 67**

MNPSEMQRKAPPRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSAGVPSNSSEE  
 TATIENGP

**SEQ ID 68.**

MNPSEMQRKAPPRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVVPTAPKRQR  
 PSRTGHDDGGFVEKKRGKCGEKQERSDCYCVVERSRRRLHFVLYA

**SEQ ID 69**

MGQTTSKIKSKYASYLSFIKILLKRGGVKVSTKNLIKFOIIEQFCPWFPPEQGTLDLKDWKRIGKELKQAGRKGNIIPLTWNDWAIKAALEPFQT  
 EEDSVSVSDAPGSCIIDCNENTRKKSQKETEGLHCEYVAEPVMAQSTQNVDYNQIQLQEVIYPETLKLEGKGPVELVGPSESKPRGTSPLPAGQVPVTLQ  
 PQKQVKENKTQPPVAYQWPPAELQYRPPESQYGYPGMPPAPQGRAPYQPQPTTRLNPTAPPSRQGSKLHEIDDKSRKEGDTEAWQFPVTLEPMPP  
 GEQAQEPEPPTVEARYKSFSIKKLKDMKEGVKQYGPNSPYMRTLDSIAHGRHLIPYDWEILAKSSLSPSQFLQFKTWWIDGVQEQRNRAANPPV  
 NIDADQLLGIGQNWTISQQLMNEAIEQVRAICLRAWEKIQDPGSTCPSFNTVRQGSKEPYPDFVARLQDVQAQSIADEKARKVIVELMAYENAN  
 PECQSAIKPLKGKVPAGSDVISEYVKACDGIGGAMHKAMLMAQAITGVVLGGQVRTFGRKCYNCGQIGHLKKNCVPLNKQNTIQTQATTGREPPDLC  
 PRCKKGKHWASQCRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPGFQGQQPLSQLVFQGISQLPQYNNCPPPQAAVQQ

**SEQ ID 70**

MGQTTSKIKSKYASYLSFIKILLKRGGVKVSTKNLIKFOIIEQFCPWFPPEQGTLDLKDWKRIGKELKQAGRKGNIIPLTWNDWAIKAALEPFQT  
 EEDSVSVSDAPGSCIIDCNENTRKKSQKETEGLHCEYVAEPVMAQSTQNVDYNQIQLQEVIYPETLKLEGKGPVELVGPSESKPRGTSPLPAGQVPVTLQ  
 PQKQVKENKTQPPVAYQWPPAELQYRPPESQYGYPGMPPAPQGRAPYQPQPTTRLNPTAPPSRQGSKLHEIDDKSRKEGDTEAWQFPVTLEPMPP  
 GEQAQEPEPPTVEARYKSFSIKKLKDMKEGVKQYGPNSPYMRTLDSIAHGRHLIPYDWEILAKSSLSPSQFLQFKTWWIDGVQEQRNRAANPPV  
 NIDADQLLGIGQNWTISQQLMNEAIEQVRAICLRAWEKIQDPGSTCPSFNTVRQGSKEPYPDFVARLQDVQAQSIADEKARKVIVELMAYENAN  
 PECQSAIKPLKGKVPAGSDVISEYVKACDGIGGAMHKAMLMAQAITGVVLGGQVRTFGRKCYNCGQIGHLKKNCVPLNKQNTIQTQATTGREPPDLC  
 PRCKKGKHWASQCRSKFDKNGQPLSGNEQRGQPQAPQQTGAFPIQPFVPGFQGQQPLSQLVFQGISQLPQYNNCPPPQAAVQQ

**SEQ ID 71**

MWATIVGKRAKGPGASGPTTNWGPNSAICSSGFSGTTPTVPSVSGNKPVTIQQLSPATSGSAAVDLCTIQAVSLLPGEPPQKPTGTVYGPLPKGT  
 VGLLILGRSSLNLKGVQIHTSVVDSDYKGEIQLVISSSIWSASPRDRIAQLLLLPIKGGNSEIKRIGGLSTDPTGKAAYWASQVSENRPVCKAII  
 QGKQFEGLVDTGADVSIIALNQWPKNWPQKAVTGLVGIGTASEVYQSTEILHCLGPDNQESTVQPMITSIPLNLWGRDLLQQWGAEITMPAPSYP  
 TSQKIMTKMGIYIPGKGLGNEDGIKIPVEAKINQEREGIGNPC

**SEQ ID 72**

MWATIVGKRAKGPGASGPTTNWGPNSAICSSGFSGTTPTVPSVSGNKPVTIQQLSPATSGSAAVDLCTIQAVSLLPGEPPQKPTGTVYGPLPKGT  
 VGLLILGRSSLNLKGVQIHTSVVDSDYKGEIQLVISSSIWSASPRDRIAQLLLLPIKGGNSEIKRIGGLSTDPTGKAAYWASQVSENRPVCKAII  
 QGKQFEGLVDTGADVSIIALNQWPKNWPQKAVTGLVGIGTASEVYQSTEILHCLGPDNQESTVQPMITSIPLNLWGRDLLQQWGAEITMPAPSYP  
 TSQKIMTKMGIYIPGKGLGNEDGIKIPVEAKINQEREGIGNPC

**SEQ ID 73**

MNKSRRRNRESLLGAATVEPPKPIPLTWKTEKPVWNQWPLPKQKLEALHLLANEQLEKGHIEPSFSPWNSPVFIQKKSQKWRMLTDLRAVNAVI  
 QPMGPLQPGPLSPAMIPKDWPILLIDLKDCFTIPLAEQDCKEFAFTIPAINNKEPATRFQWKVLPOGMILNSPTICQTFVGRALQPVREKFSDCYII  
 HCIDDILCAAETKDKLIDCYTFLQAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPQKIEIRKDTLTLNDFQKLLGDINWIRPTLGIPTYAMS  
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VIKTPYQSAQRAELVAVITVILQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFPPYITHIRAHNTLPGPLTKANEQA  
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NLALYTLNFLNIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRCFACVSPGENQLPVWIPTRLKFYNEPIRDAKKSTAET  
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**SEQ ID 74**

MNKSRRNRNRESLLGAATVEPPKPIPLTWKTEKPVWVNQWPLPKQKLEALHLLANEQLEKGHIIEPSFPWNSPVFVIQKKSGKWRMLTDLRAVNAVI  
QPMGLQPGPLSPAMIPKDWPILLIDLKDCFTIPLAEQDCKEFAFTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVREKFSDCYII  
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VIKTPYQSAQRAELVAVITVILQDFDQPINIISDSAYVVQATRDVETALIKYSMDDQLNQLFNLLQQTVRKRNFPPYITHIRAHNTLPGPLTKANEQA  
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NLALYTLNFLNIYRNQTTSAEQHLTGKKNSPHEGKLIWWKDNKNKTWEIGKVITWGRCFACVSPGENQLPVWIPTRLKFYNEPIRDAKKSTAET  
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**SEQ ID 75**

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CACGCCAGCAGTAA

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CAACCCAGCAGAGCGTGTACGAGAACAGGCCATCGAGCAGGTGCGCCATCTGCCCTGCCGCTGGGCAAGATCCAGGACCCGGCACCGCTTC  
CCCCATCAACAGCATCCGCCAGGGCAGCAAGGGGCCACCGACTTGTGGCCCGCTGCAAGGACGCCGCCAGAACAGGACATACCGACGACAACG  
CCCCCAAGGTGATCGTGGAGCTGTGGCTTACGAGAACGCCAACCCGACTGCCAGAGGCCATCAAGCCCTGAAAGGGCAAGGTGGCCGGCGT  
GGACGTGATCCCGAGTACGTGAAGGCCCTGCGACGCCATCGCGGCCATGCAAGGCCATGCTGATGGCCAGGCCATGCCGCGCTGACCCCTG  
GGCGGCCAGGTGCGCCTCGCGCAAGAACAGTGTACAAACTGCCAGATGCCACCTGAAGGCCAGCTGCCCGTGTGAACAAGCAGAACATCA  
TCAACCAGGCCATCCGCCAAGAACAGAACAGGCCACCGGCCCTGTGCCCAAGTGCAGGCCAGAGCAAGCAACTGGCAACCAAGTGCACAGCAAGT  
CGACAAGGAGCGCCAGCCCCCTGAGCGCAACCGCAAGCGCGCCAGCCCCAGGCCAGGCCAGCACCGGCCCTCCCGTGCAGCTGTTGCGCC  
CAGGGCTTCCAGGGCCAGCAGGCCCTGCAAGAACATCCCCCCCCCTGCAAGGGCGTGAAGGCCAGCTGCACTGCCAGAGCAACAGCTGCC  
CCGCCAGGCTTAA

SEQ ID 78

MGQTESKYASYLSFIKILLRRGGVRASTENLITLFOQIEQFCPWPEQGTLDKDWKEIGKELKQANREGKIIPLTVWNDWAIKATLEPFQFTGEDIVSVDAPKSCVTDCCEEAGTESQQGTTESSHCKYVAESVMAQSTQNVDYSQLQEIIYPESSKLGEPPGPSEPKPRSPSTPPPVQMPVTLOPQTQVRQAQTPRENQVERDRVSIPAMPTQIOPYQPQVENEKTQPLVVYQYRLPTELQYRPPSEVQYRPQAVCPVNSTAPYQQPTAMASNNSPATQDAALYPPQPTVRLNPTASRGSGGGALHAVIDEARKQGDLEAWRFLVILQLVQAGEETQVGAPARAETRCPEFTMCKLKDIKEGVKQYGSNSPYIRTLLSDIAHGNRLTPDWEIILAKSSLSSSQYIQLFKTWWIDGVQEQRKNQATKPTVNIDADQLLGTPNWSTINQQSVMQNEAIEQVRAICLRAWGKIQDQPGTAFPINSIRQGSKEPYPDFVARLQDAAQKSITDDNARKVIVELMAYENANPECQSAIKPLKGKVPGDVDITEYVKACDGIGGMHKAMLMAQMRLGLTLLGGQVRTFGKKCYNCGQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLCPKGKGKHANQCHSKFDKGQPLSGNRKRGQPQAPQQTGAFPVQLFVPGQFGQQQPLQKIPPLQGVSQLQQSNSCPAPQQAOPQ

SEQ ID 79

MGQTESKYASYLSFIKILLRRGGVRASTENLITLFQTIQEFCPWFPQEQTLQLDKWEKGELKQANREGKIIPLTWWDWAIIKATLEPFQFTGEDIVSVDAPKSCVTDCCEEAGTESQQGTTESSHCKYVAESVMAQSTQNVDYSQLQEIIYPESSKLGEGGPESLGPSEPKRSPSTPPPVQMPVTLQPQTQVRQAQTPRENRVERDRVSIPAMPTQIQYPQYQPVENKTQPLVVYQYRLPTELQYRPPSEVQYRPQAVCPVNSTAPYQQPTAMASNNSPATQDAALYPOPPTVRLNPTASRGQGGALHAVIDEARKQGDLEAWRFLVILQLVQAGEETQVGAPARAETRCEPFTMKLDIKEGVKQYGSNSPYIRTLDSIAHGNRLTPDWEI LAKSSLSSSQYLFKTTWIDGVQEQRKNQATKPTVNIDADQQLLGTGPWNSTINQQSVMQNEAIEQVRAICLRAWGKIQDQPGTAFPINSIROGSKEPYPDFVARLQDAAQKSITDDNARKVIVELMAYENANPECQSAIKPLKGKVPAGDVDITEYVKACDGIGGAMHKAMLMAQMRLGLTIGGQVRTFGKKCYNCGQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLCPKGKGKHWNQCHSKFDKGQPLSGNRKRGQPQAPQQTGAFPVQLFVPOGFOGOOPILOKIPPLQGVSOLOOONSSCPAPOOAAPOA

SEQ ID 80

GCCGCGGAATTTCGACTCTAGGCCATTGCATACGGTGTATCTATCATATAATATGTACATTATGGCTCATGCCAATATGACC GCCATTGTA  
CATTGATTATTGACTAGTTAATAGTAATCAATTACGGGTCTTAGTCATAGCCATATAGGAGTCGGCTACATACTTACGGTAATG  
GCCGCCTGGTGCACGCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTCCTAGTAACGCCAATAGGGACTTCCATTGACGTCA  
ATGGGTGGAGTTTACCGTAACTCCCATTGGCAGTACATCAAGTGATCATATGCCAAGTCCCCCTATTGACGTCAATGACGGTAATGG  
CCCCCCTGGCATTATGCCAGTACATGACCTTACGGACTTCTACTTGCAGTACATCACGGTATTAGTCATGCCATTACCATGGTGTGCCGGT  
TTGGCAGTACACCAATGGCGTGGATAGCGTTGACTCACGGGATTTCAAGTCTCCCCATTGACGTCAATGGGAGTTGTTTGCACCA  
AAATCAACGGACTTCCAAAATGCTAATAACCCGCCGGTGA CGCAAATGGCGTAGGCCGTACGGTGGGAGGTATATAAGCAGAGCT  
CGTTTAGTGAA CGTCAGATGCCCTGGAGACGCCATCCACGCTTTGACCTCATAGAACAGACACCGGACCGATCCAGCCTCCGGCGCCGGAAAC  
GGTGCATTGGAACCGGGATTCCCGTCCAAGAGTGACGTAACTACGCCATAGACTATAGGCACACCCCTGGCTCTATGCATGCTATACT  
GTTTTGGCTGGGGCTATACACCCCCGCTTCTATGCTATAGGTGATGGTATAGCTTAGGCTATAGGTGTTGGCTATTGACCATTATTGACCAC  
TCCCCTATTGGTGACGATACTTCCATTACTAATCCATAACATGGCTTTGCCACA ACTATCTTATGGCTATATGCCAATACTGTCTTCTCAG  
AGACTGACACGGACTCTGATT TTAACAGGATGGGGCCATT ATTATTTACAAATTACATATAACACACCGGCTCCCGTGCCCGAGTTT  
TATTAACATAGCGTGGATCTCCACGCCAATCTGGTACGTGTCCTCCGGACATGGCTCTCTCCGGTAGCCGGAGCTTCCACATCCGAGCCCT  
GGTCCCATGCCCTCCAGGGCTCATGTCGCTGGAGCTCTGTCCTAACAGTGGAGGCCAGACTTAGGCACAGCACAATGCCACCCACCCAG

SEQ ID 81

ATGAACCCAAAGCAGATGCCAAGAAAAGCACCTCCGGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAAGATGAACAAAATGGTGACGT  
CGAAAGAACAGATGAAGTGGCATCCCAAGAACGGAGAGGCCCAACTTGGGCACAACATAAGAACGCTGACGCAGTTAGCTACAAAATCTAGA  
GAACACAAAGGTGACACAAACCCAGAGAGTATCCTGCTTGCAGCCTTGATGATTGATCAATGGTGGTAAGTCCTCCATGCTGCAAGGAGCAGCT  
GCAGCTAATATACTTACCTACTGGGCTATGTGCCCTTCGCCCTTAATCGGGCAGTCACATGGATGGATAATCCTACAGAACGATATATGTTAATGATA

GTGTATGGGTACCTGGCCCCATAGATGATCGCTGCCCTGCCAACCTGAGGAAGAAGGGATGATGATAAATTTCATTGGGTATCATTATCCCTCC  
 TATTGGCTAGGGAGAGCACCGAGATGTTAATGCCTGCAGTCAAATTGGTGGTAGAAGTACTACTGTCACTCCCCTCTGTAGATTCACTTAT  
 CATGGTAACGGGATGCACTCAGGCCACGGTAAATTATCACAGACTTTCTTATCAAAGATCATTAAAATTAGACCTAAAGGGAAACCTT  
 GCGCAAGGAAATTCCCAAGAATCAAATTACAGAGTTTACTTGGGAAAGATGTGTGCCAATAGTGCGGTGATATTACAAAACAATGAATT  
 CGGAACATTATAGATTGGCACCTCGAGGTCAATTCTACCACAAATTGCTCAGGACAAACTCAGTCGTGTCAGTGCAACTGAGTCCAGCTGTT  
 GATAGCAGCTAACAGAAAGTTAGACAAACATAAGCATAAAAATTGCACTTACCCCTGGGAAATGGGAGAAAAGGAATCTCACCCCA  
 GACCAAAATAGTAAGTCTGTTCTGGTCTGAACATCCAGAAATTAGGAGGTTACTGTGCCCTCACACCACATTAGAATTGGTCTGGAAATCA  
 AACTTAAAGAACAGAGATCTAACGCAATTATACATTGACCTGATTCCAGTCAACAGTCTTACAAAGTTGCGTAAAGCCCCCTATATG  
 CTAGTTGAGGAAATATAGTTAAACAGACTCCAGACTATAACCTGTGAAATTGAGATTGCTTACTTGCAATTGATTCAACTTTAATTGGC  
 AACACCGTATTCTGCTGGTGGAGAGCAAGAGGGCGTGGATCCCTGTGTCATGGACCGACGGCTGGGAGGCCATCGCCATCCGTCCATTG  
 TGAAAGTATTAAAAGGTGTTAAATAGATCAGGAAAGATTCACTTTACTTAAATTGCACTGATTAGGGATTAAATTGCACTACAGCTACGGCTGCT  
 GTAGCAGGAGTCCATTGCACTCTCTGCACTGAGTAAACTTTGTTAATGATGGCAAAAGGAAATTCTACAGGATTGTGGAATTCAAATCTAGTA  
 TTGATCAAAATTGGCAAATCAAATTAAATGATCTTAGACAAACTGTCATTGGATGGAGACAGACTCATGAGCTTAGAACATCGTTCCAGTTACA  
 ATGTAAGTGGAAATACGTCAGATTGTTAATCACCCCCAAATTATAATGAGTCTGAGCATCAGGGACATGGTAGACGCCATCTACAGGAAAGA  
 GAAGATAATCTCACTTAAAGACATTCCAATTAAGAACAAATTTCGAAGCATCAAAGCCATTAAATTGGTGCAGGAAACTGAGGCAATTG  
 CAGGAGTTGCTGATGGCTCGCAAATCTAACCTGCACTTGGGTTAAGACCATTGAGACTACGATTATAATCTCATATTAACTCCTGTG  
 CCTGTTTGCTGTTAGTCTGCAGGTGTAACCAAGCTCCGAAGAGACAGCAGGACATCGAGAACAGGGCATGATGACGATGGCGTTGTG  
 AAAAGAAAAGGGGAAATGTGGGAAAGCAAGAGAGATCAGATTGTTACTGTGTGCGCTAA

**SEQ ID 82**

ATGAACCCCAGCGAGATGCAGCCAAGGCCCCCCCCCGCCGCCACCGAACCGGCCCCCTGACCCACAAGATGAAACAAGATGGTGACCA  
 GCGAGGAGCAGATGAAGCTGCCAGCACCAGAACGGCCAGCCCCACCTGGGCCAGCTGAAAGCTGACCCAGCTGGCCACCAAGTACCTGG  
 GAACACCAAGGTGACCCAGACCCCCGAGAGCATGCTGCTGGCGCCCTGATGATCGTGGAGCTGGCCATGGGAGGCTGGGAGGCTGG  
 GCCGCCACTACACCTACTGGGCTACGTGCCCTTCCCCCCCCCTGATCCGCGCCGTGACCTGGGACACCCACCGAGGTGACGTGAAAGACA  
 GCGTGTGGTGGCGCCCGCCATCGACGACCGCTGCCCGCCAAGCCCCAGGGAGGAGGGCATGATGATCAAACATCAGCATCCGCTACCA  
 CACATCTGCTGGCGCCGGCTGCTGATGCCCGCCGTGCAACTGGCTGGGAGGCTGGCCACCCGCTGAGCCCCATCTGCCGCTTCACCTAC  
 CACATGGTGGCGCATGAGCTGCGCCCGCGTGAACACTGCAAGGACTTCAGCTACCAGCCGCTGAAGTCCGCCCCAAGGGCAAGCC  
 GCGCCAAAGGAGATCCCCAAGGAGGAGCAAGAACACCGAGGTGCTGGTGTGGGAGGAGTGGCTGGCAACAGCGCCGCTGATCTG  
 CGGACCATCATGCACTGGCCCCCGCGGCACTTACACCATGACGACCTGACGGGAGGAGCTGGCCACCCGAGGCTGCCCCAGGTGAG  
 GACAGCGACCTGACCGAGAGCCCTGACAAGCACAAGAACAGCTGAGAGCTTACCCCTGGGAGGCTGGGCGAGAACGGCATCAGCAC  
 GCGCCAAAGATGTTGAGCCCGTGAGCGGCCCGAGCACCCCGAGCTGGCCGCTGACCTGGGCGCATCCGCTGAGGGCAACCG  
 GACCCCTGGAGACCCCGGACCGCAAGCCCTCTACACCATGACGACCTGACGGGAGGAGCTGGCCACCCGCTGAGAGCTGGTGAAG  
 CTGGTGGTGGCAACATGATCAAGCCGACAGGACCCATCACCTGGAGAAGCTGGCCCTGCTGACCTGCACTGACAGCACCTCACTGG  
 AGCACCGCATCTGCTGGTGCAGGCCCGAGGGCTGTTGAGTCCCCGTGAGCATGGACCGGCCCCCTGGGAGGCGAGCCCCAGCGTGC  
 CGAGGTGCTGAGGGCGTGTGAACCGCAGCAAGCGCTTACCTCACCCCTGATGCGGCTGATCATGGGCTGATCGCCGCTGACCG  
 GTGGCCGGCGTGGCCCTGACAGCAGCGTGCAGAGCGTGAACACTGGCAGAGAACAGCACCCGCTGAGGGACAGAGCAGCA  
 TCGACCAAGCTGGCAACCAAGATCACGACCTGCCAGCGTGAATGGGATGGGACCCCTGATGAGGCTGGAGCACCGCTTCCAGCTG  
 GTGCGACTGGAACACCAGCAGCTCTGATCACCCCCCAGATCTACACAGAGAGCGAGCACCTGGGAGGCTGGGAGGCGACCTG  
 GAGGACAACCTGACCCCTGGACATCAGCAAGCTGAAGGAGCAGATCTGAGGCCAGCAAGGCCACCTGAAACCTGGTGGCCG  
 CGAGGCGTGGCCGACGGCTGGCAACCTGAACCCCGTGAACCTGGGAGGACATGGCAGCACCCATCATCAACCTGATCTGGT  
 CCTGTTCTGCTGCTGGTGTGCCGCTGCACCCACAGCTGCCCGCGAGCGACCAAGCGGAGGCCATGATGACCATGGCCGCTG  
 AAGCGCAAGGGCGCAACCTGGCAAGAGCAAGCGCACCAGATCGTGAACCGTGAAGCGT

**SEQ ID 83**

MNPSEMQKAPPRRRHRNRAPLTHKMNMVTSEEQMLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLIAlMIVSMVSLPMPAGAA  
 AANYTYWAYVPFPPLIRAVTWMDNPTEVYVNDSVWVGPIDDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNWLVEVPTVSPICRFTY  
 HMVSGMSLRPRVNYLQDFSYQRSLKFRPKPGKPCPKEIPKESKNTEVLVWEECVANSAVILQNNEFGTIIDWAPRGQFYHNCGQTQSCPASQVSPAV  
 DSDLTESLDKHKKLQSFYPWEWGEKGISTPRPKIVSPVSGPEHPELWRLTASHHIRIWSGNQTLERDRKPFYTIDLNSSLTVPLQSCVKPPYM  
 LVVGNIVIKPDSQITCENCRLLCIDSTFNWQHRIILVRAREGVWIPVSMDRPWEASPSVHILTEVLKGVLNRSKRFIFTIAVIMGLIAVTATAA  
 VAGVALHSSVQSVNFVNWDWKNSTRLWNQSIDIQKLANQINDLRQTVIWMGDRIMSLEHRFQIQCQDWNTSDFCITPQIYNESEHHWDMVRHLQGR  
 EDNLTLISKLKEQIFEAASKAHNLVPGTEAIAGVADGLANLPVTWKTIGSTTINLILILVCLFCLLIVCRCTQQLRRDSHRERAMMTMAVS  
 KRKGNGVGSKRDQIVTVSVA